What is claimed is:

1. A radio frequency transmission line structure comprising:

a conducting transmission element;

a substrate comprising at least a first ground plane for grounding said transmission element;

means for electrically connecting said transmission element to said at least a first ground plane; and

means for suspending said conducting transmission element a first distance away from said substrate in a way such that said transmission element is located at a second predetermined distance away from said ground plane.

2. The transmission line structure of claim 1 wherein said conducting transmission element is a microstrip transmission line adapted to carry a radio frequency signal.

3. The transmission line structure of claim 1 wherein said substrate further comprises a plurality of conducting layers separated by at least a first layer of dielectric material.

4. The transmission line structure of claim 1 wherein said means for electrically connecting comprises a plurality of conducting support elements electrically connected to said ground plane.

5. The transmission line structure of claim 1 wherein said means for suspending comprises said means for electrically connecting.

6. The transmission line structure of claim 1 wherein said means for suspending comprises a plurality of support elements attached to said transmission element.

7. A radio frequency transmission line structure comprising:

a dielectric substrate having at least a first ground plane;

a conducting transmission element;

a plurality of support elements for suspending said transmission element a predetermined distance away from said ground plane,

wherein said transmission element is not in contact with said substrate other than through said support elements.

8. The transmission line structure of claim 7 wherein said transmission element is in contact with said substrate only through said support elements.

9. The transmission line structure of claim 7 wherein said support elements are support arms adapted to suspend said transmission element above said substrate.

10. The transmission line structure of claim 7 wherein said support elements are support posts comprising a part of said substrate.

11. The transmission line structure of claim 7 wherein at least one of said support elements comprises an electrically conducting material.

12. The transmission line structure of claim 7 wherein at least a first characteristic of said support elements and at least a first characteristic of said transmission element are selected in a way such that at least a first electrical property of said transmission line structure is achieved.

13. The transmission line structure of claim 12 wherein said at least a first property of said transmission line structure comprises the impedance of said transmission line structure.

14. A radio frequency transmission line structure comprising:

a dielectric substrate having at least a first ground plane;

a conducting transmission element;

a plurality of support elements for suspending said transmission element a desired distance away from said ground plane,

wherein said transmission element is not substantially in direct contact with said substrate.

15. The transmission line structure of claim 8 wherein said transmission element is in contact with said substrate only through said support elements.

16. The transmission line structure of claim 8 wherein said support elements are support arms adapted to suspend said transmission element above said substrate.

17. The transmission line structure of claim 8 wherein said support elements are support posts comprising a part of said substrate.